

## AMENDMENTS TO THE CLAIMS

- 1 1. (Currently Amended) A computer-implemented method for buffering data in a  
2 multithreaded environment, comprising:  
3 ~~generating log data in response to a request for accessing a resource;~~  
4 ~~identifying a buffer management structure that is associated with a plurality of~~  
5 ~~data buffers;~~  
6 ~~reading a last-buffer index value that is associated with the buffer management~~  
7 ~~structure, wherein said last buffer index value provides information that~~  
8 ~~identifies a last data buffer that was last used for buffering data;~~  
9 incrementing the buffer index value;  
10 locating a buffer array entry that is associated with the buffer index value;  
11 determining whether the buffer array entry indicates a particular value;  
12 if the buffer array entry does not indicate the particular value, then attempting to  
13 obtain a lock on a particular data buffer that is associated with the buffer  
14 array entry; and  
15 if the buffer array entry indicates the particular value, then incrementing the  
16 buffer index value.  
17 ~~selecting a data buffer that is associated with said buffer management structure~~  
18 ~~based on said last buffer index value.~~
- 1 2. (Currently Amended) The method of Claim 1, further comprising:  
2 if the attempt to obtain the lock on the particular data buffer succeeds, then  
3 updating the buffer array entry to indicate the particular value, maintaining  
4 ~~a data structure that is associated with said plurality of data buffers,~~  
5 ~~wherein the data structure is associated with a group of flags that provide~~  
6 ~~an indication as to whether an entry in said data structure is likely to be~~  
7 ~~associated with a data buffer that is available for storing said log data; and~~

8       ~~prior to writing said log data, reading a flag associated with a particular data~~  
9       ~~structure entry to determine whether said particular data structure entry is~~  
10       ~~likely associated with a data buffer that is available for storing said log~~  
11       ~~data.~~

1     3.     (Currently Amended) The method of Claim 1, further comprising:  
2       receiving a connection request from a client;  
3       assigning a thread of execution to process said connection request; and  
4       ~~wherein the step of identifying a buffer management structure further comprises~~  
5       ~~the step of said thread of execution selecting said a particular~~ buffer  
6       management structure from a plurality of buffer management structures,  
7       wherein said plurality of buffer management structures are each associated  
8       with a set of data buffers that are used for buffering data to a physical  
9       memory unit;  
10       wherein the buffer index value is associated with the particular buffer  
11       management structure.

1     4.     (Currently Amended) The method of Claim 1, ~~wherein~~ further comprising:  
2       generating log data in response to a request for accessing a resource, wherein said  
3       resource represents one or more sets of content that are associated with a  
4       network server; and  
5       ~~the step of identifying a buffer management structure comprises the step of~~  
6       selecting ~~said a~~ buffer management structure based on one or more  
7       addresses in which said one or more sets of content are stored on said  
8       network server.

1     5-6.   (Canceled)

- 1 7. (Currently Amended) The method of Claim 1, further comprising the step of  
2 writing ~~said~~ log data into said particular data buffer.
- 1 8-9. (Canceled)
- 1 10. (Currently Amended) The method of Claim 1, further comprising:  
2 maintaining ~~said~~ a plurality of data buffers as an array of available buffers; and  
3 in response to detecting that ~~a~~ the particular data buffer contains a particular  
4 limited amount of free data space, removing said particular data buffer  
5 from said array of available buffers.
- 1 11. (Original) The method of Claim 10, wherein the step of removing said particular  
2 data buffer from said array of available buffers further comprises linking said  
3 particular data buffer into a list of ready-to-write data buffers.
- 1 12. (Original) The method of Claim 11, further comprising:  
2 removing said particular data buffer from said array of available buffers; and  
3 storing on a non-volatile storage unit information contained in said particular data  
4 buffer.
- 1 13. (Currently Amended) The method of Claim 1, further comprising:  
2 maintaining ~~said~~ a plurality of data buffers as an array of available buffers; and  
3 ~~wherein the step of selecting a data buffer that is associated with said buffer~~  
4 ~~management structure comprises the step of:~~  
5 in response to determining that no data buffer is available in said array of  
6 available buffers for storing said log data, requesting a free data buffer  
7 from a global list of free data buffers.
- 1 14-35. (Canceled)

1 36. (New) A computer-readable medium carrying one or more sequences of  
2 instructions for buffering data in a multithreaded environment, wherein execution  
3 of the one or more sequences of instructions by one or more processors causes the  
4 one or more processors to perform the steps of:  
5 reading a buffer index value that identifies a data buffer that was last used for  
6 buffering data;  
7 incrementing the buffer index value;  
8 locating a buffer array entry that is associated with the buffer index value;  
9 determining whether the buffer array entry indicates a particular value;  
10 if the buffer array entry does not indicate the particular value, then attempting to  
11 obtain a lock on a particular data buffer that is associated with the buffer  
12 array entry; and  
13 if the buffer array entry indicates the particular value, then incrementing the  
14 buffer index value.

1 37. (New) The computer-readable medium of Claim 36, further comprising  
2 instructions for performing the steps of:  
3 if the attempt to obtain the lock on the particular data buffer succeeds, then  
4 updating the buffer array entry to indicate the particular value.

1 38. (New) The computer-readable medium of Claim 36, further comprising  
2 instructions for performing the steps of:  
3 receiving a connection request from a client;  
4 assigning a thread of execution to process said connection request; and  
5 selecting a particular buffer management structure from a plurality of buffer  
6 management structures, wherein said plurality of buffer management  
7 structures are each associated with a set of data buffers that are used for  
8 buffering data to a physical memory unit;

9 wherein the buffer index value is associated with the particular buffer  
10 management structure.

1 39. (New) The computer-readable medium of Claim 36, further comprising  
2 instructions for performing the steps of:  
3 generating log data in response to a request for accessing a resource, wherein said  
4 resource represents one or more sets of content that are associated with a  
5 network server; and  
6 selecting a buffer management structure based on one or more addresses in which  
7 said one or more sets of content are stored on said network server.

1 40. (New) The computer-readable medium of Claim 36, further comprising  
2 instructions for performing the step of writing log data into said particular data  
3 buffer.

1 41. (New) The computer-readable medium of Claim 36, further comprising  
2 instructions for performing the steps of:  
3 maintaining a plurality of data buffers as an array of available buffers; and  
4 in response to detecting that the particular data buffer contains a particular limited  
5 amount of free data space, removing said particular data buffer from said  
6 array of available buffers.

1 42. (New) The computer-readable medium of Claim 41, wherein the step of removing  
2 said particular data buffer from said array of available buffers further comprises  
3 linking said particular data buffer into a list of ready-to-write data buffers.

1 43. (New) The computer-readable medium of Claim 42, further comprising  
2 instructions for performing the steps of:  
3 removing said particular data buffer from said array of available buffers; and

4 storing on a non-volatile storage unit information contained in said particular data  
5 buffer.

1 44. (New) The computer-readable medium of Claim 36, further comprising  
2 instructions for performing the steps of:  
3 maintaining a plurality of data buffers as an array of available buffers; and  
4 in response to determining that no data buffer is available in said array of  
5 available buffers for storing said log data, requesting a free data buffer  
6 from a global list of free data buffers.

1 45. (New) A computer system, comprising:  
2 means for reading a buffer index value that identifies a data buffer that was last  
3 used for buffering data;  
4 means for incrementing the buffer index value;  
5 means for locating a buffer array entry that is associated with the buffer index  
6 value;  
7 means for determining whether the buffer array entry indicates a particular value;  
8 means for attempting to obtain a lock on a particular data buffer that is associated  
9 with the buffer array entry in response to a determination that the buffer  
10 array entry does not indicate the particular value; and  
11 means for incrementing the buffer index value in response to a determination that  
12 the buffer array entry indicates the particular value.